

Patent claims

1. Hydroxy-functional binder components **ABC** containing a linear or branched main chain which has a polymethylene structure $-(CH_2)_n-$ or a polyester structure or a structure
5 derived from fatty acid esters of glycerol or other polyhydric alcohols, characterised in that they have cyclic imide structures grafted on to the main chain, the imide nitrogen atom being substituted by a hydroxyalkyl group or a hydroxyalkyl-aryl group.
- 10 2. Hydroxy-functional binder components **ABC** obtained by reaction of olefinically unsaturated substances **A** having at least one olefinic double bond and a molar mass of from 400 g/mol to 6,000 g/mol, olefinically unsaturated cyclic acid anhydrides **B** and hydroxyamines **C** having at
15 least one primary amino group and at least one hydroxyl group, wherein the radicals of the acid anhydrides **B** are bonded to the compounds **A** by a carbon-carbon bond, and wherein the acid anhydride groups are converted into acid imide groups by reaction with the hydroxyamines **C**.
- 20 3. The hydroxy-functional binder components **ABC** of claim 2, characterised in that the olefinically unsaturated substances **A** are selected from the group consisting of oils, partially saponified or partially transesterified oils, low molar mass alkyd resins and
25 oligomers or polymers of diolefins.
4. The hydroxy-functional binder components **ABC** of claim 2, characterised in that the olefinically unsaturated cyclic acid anhydrides **B** are intramolecular anhydrides of aliphatic and cycloaliphatic dicarboxylic acids having 4
30 to 16 carbon atoms and contain at least one olefinic double bond.
5. The hydroxy-functional binder components **ABC** of claim 2, characterised in that the hydroxyamines **C** are aromatic-aliphatic or aliphatic linear, branched or
35 cyclic hydroxyamines having at least one hydroxyl groups

and at least one primary amino group and at least two carbon atoms.

6. A process for the preparation of hydroxy-functional binder components **ABC** according to one of claims 1 and 2, characterised in that olefinically unsaturated substances **A** having at least one olefinic double bond and a molar mass of from 400 g/mol to 6,000 g/mol are reacted with olefinically unsaturated cyclic acid anhydrides **B** to give an adduct linked via carbon-carbon bonds, which is reacted with hydroxyamines **C** having at least one primary amino group and at least one hydroxyl group, with conversion of the acid anhydride groups into acid imide groups by reaction with the hydroxyamines **C**.

7. A method of use of hydroxy-functional binder components **ABC** of claim 1 or 2, comprising converting these into compounds **ABCD** by ester formation with low molar mass or high molar mass compounds **D'** containing acid groups, or in an addition reaction with low molar mass compounds **D''** containing isocyanate groups.

8. The method of use of claim 7, characterised in that the reaction with the compounds **D'** is carried out by esterification with exit of water, the reaction products containing at least one acid group per molecule.

9. The method of use of claim 7, characterised in that the reaction with the compounds **D''** chosen from compounds having at least one isocyanate group and at least one acid group and compounds having at least one isocyanate group and at least one olefinically unsaturated group is carried out by formation of a urethane structure, a urea structure or a thiourethane structure, the reaction products containing either at least one acid group or at least one olefinically unsaturated group per molecule.

10. The method of use of claim 7, characterised in that the reaction products **ABCD** modified with the compounds **D'** or **D''** are employed as binders for paints.